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AMENDMENTS TO THE CLAIMS

Please amend claims 1, and 3 as follows:

Claim 1 (currently amended): A display system comprising:

5 a memory, containing graphics data, divided into logical regions, and frame buffer attribute data for each pixel of a monitor; and

an attribute system, connected to said memory wherein said attribute system automatically selects graphics data from fewer than all of said logical regions based on said frame buffer attribute data and transmits said graphics data to a display.

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Claim 2 (previously presented): The display system recited in claim 1; wherein said graphics data and said frame buffer attribute data are stored in physically separate memories.

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15 Claim 3 (currently amended): A display system, comprising:

a memory, containing graphics data, divided into logical regions, and frame buffer attribute data for each pixel of a monitor; and

a regions system, that automatically calculates which regions of said graphics data contain data necessary for display of a block of pixels; wherein said regions are
20 fewer than all of said logical regions.

Claim 4 (previously presented): The display system recited in claim 3; wherein said graphics data and said frame buffer attribute data are stored in physically separate memories.

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Claim 5 (original): The display system recited in claim 3;

wherein said regions system sends identities of said regions to a screen refresh unit; and

wherein said screen refresh unit, calculates memory addresses from said identities and sends selected graphics data from said memory to a display.

Claim 6 (original): The display system recited in claim 5, said logical regions further comprising memory to store graphics data for each pixel of a monitor.

Claim 7 (previously presented): A method for selectively reading pixel data from a frame buffer memory array, comprising the steps of:

defining a plurality of regions of frame buffer memory, wherein each region comprises memory to store graphics data for each pixel of a monitor;

storing frame buffer attribute data for each pixel in a memory, wherein said frame buffer attribute data encodes which of said regions are to be displayed on said monitor;

retrieving said frame buffer attribute data for a pixel from said memory;

calculating a subset of said regions of frame buffer memory that are required to display said pixel on said monitor; and

retrieving from said frame buffer memory pixel data only from said subset of regions of frame buffer memory that are required to display said pixel on said monitor.

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Claim 8 (previously presented): The method for selectively reading pixel data from a frame buffer memory array as recited in claim 7; wherein said graphics data and said frame buffer attribute data are stored in said frame buffer memory.

5 Claim 9 (previously presented): A method for selectively reading pixel data from a frame buffer memory array, comprising the steps of:

defining a plurality of regions of frame buffer memory, each region further comprising memory to store graphics data for each pixel of a monitor;

10 storing frame buffer attribute data for each pixel in a memory, encoding which of said regions are to be displayed on said monitor using the frame buffer attribute data;

defining groups of pixels as tiles;

selecting a tile for display on said monitor;

retrieving said frame buffer attribute data for said tile from said memory;

15 calculating a subset of said regions of frame buffer memory that are required to display said tile on said monitor; and

retrieving from said frame buffer memory pixel data only from said subset of regions of frame buffer memory that are required to display said tile on said monitor.

20 Claim 10 (previously presented): The method for selectively reading pixel data from a frame buffer memory array as recited in claim 9; wherein said graphics data and said frame buffer attribute data are stored in said frame buffer memory.